

# Abstract

Improved process for the oxidation of organic substrates by means of  $^1\text{O}_2$ , in which 3-90% strength  $\text{H}_2\text{O}_2$  is added to organic substrates which are soluble in water or in organic solvents miscible with water and which react with  $^1\text{O}_2$ , in a water-miscible organic solvent, in water or in a mixture of water and water-miscible organic solvent in the presence of a heterogeneous or homogeneous catalyst, whereupon, following the catalytic decomposition of  $\text{H}_2\text{O}_2$  to give water and  $^1\text{O}_2$ , the oxidation of the substrates to give the corresponding oxidation products takes place, where, during the reaction, water is selectively removed from the reaction mixture by means of membranes.